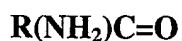


CLAIMS

We claim:

- 5 1. A composition that allows a probe and target to hybridize at a temperature lower than their standard hybridization temperature, comprising a chemical component of the formula:



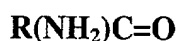
10

where R is an amino or alkyl group.

- 15 2. A composition as recited in claim 1, wherein said probe is a biopolymer from 10 to 80 nucleotides long.
3. A composition as recited in claim 1, wherein said target is a biopolymer from 10 to 80 nucleotides long.
- 20 4. A composition as recited in claim 1, wherein said probe is fixed on a surface.
5. A composition as recited in claim 1, wherein said target is fixed on a surface.
6. A method that allows a probe and target to hybridize at a temperature lower than their standard hybridization temperature, comprising:

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- (a) adding to the probe and target a chemical component of the formula:



where R is an amino or an alkyl group;

- (b) heating the probe and target in the presence of the added component;
and

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- (c) allowing the probe and target to hybridize.

7. A method as recited in claim 6, wherein said probe and target are heated to at least their standard hybridization temperature.

8. A method as recited in claim 6, wherein said chemical component is added to a solution.

9. A kit for hybridizing biopolymers at temperatures below their standard hybridization temperatures, comprising:

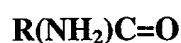
(a) a micro array;

(b) a composition for use with said micro array; and

(c) a target for detection.

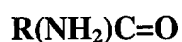
10. A kit as recited in claim 9, further comprising a set of instructions.

11. A kit as recited in claim 9, wherein said composition to be added to said micro array contains a chemical component of the formula:



where R is an amino or alkyl group.

12. A composition that allows a probe on a micro array surface to hybridize to a target at a temperature lower than their standard hybridization temperature, comprising a chemical component of the formula:



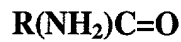
where R is an amino or alkyl group.

13. A composition as recited in claim 12, wherein said probe is a biopolymer from 10 to 80 nucleotides long.

14. A composition as recited in claim 12, wherein said target is a biopolymer from 10 to 80 nucleotides long.

15. A method that allows a probe on a micro array surface to hybridize to a target at a temperature lower than their standard hybridization temperature, comprising:

(a) adding to the probe and target a chemical component of the formula:



where R is an amino or an alkyl group;

(e) heating the probe and target in the presence of the added component;

and

(f) allowing the probe and target to hybridize.

16. A method as recited in claim 15, wherein said probe and target are heated to at least their standard hybridization temperature.

17. A method as recited in claim 15, wherein said chemical component is added to a solution.